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Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C.

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FCC 93-532

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In the Matter of )

Open Network Architecture Tariffs )  
of Bell Operating Companies )

CC Docket No. 92-91 ✓

**ORDER**

Adopted: December 2, 1993;

Released: December 15, 1993

By the Commission: Chairman Hundt not participating.

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## I. INTRODUCTION

1. This Final Order completes the investigation of Open Network Architecture (ONA) rates that took effect pursuant to the Commission's decision in the Part 69 ONA Order.<sup>1</sup> In that Order, the Commission adopted revisions to Part 69 of the Commission's Rules, specifying rate structure and other tariffing requirements for BOCs when implementing Open Network Architecture (ONA), including the filing of tariffs for ONA services. The Commission ordered the BOCs to unbundle from their existing feature group access arrangements optional service offerings, to be called basic service elements (BSEs). These BSEs were distinguished from the essential, underlying switching and transmission services called basic serving arrangements (BSAs). This structure, and related safeguards adopted in the Part 69 ONA Order, will enable BOCs to compete in the enhanced services market and encourage efficient prices and innovation, while preventing anticompetitive practices they might direct at independent enhanced service providers. Unbundled and optional BSEs are initially priced on a flexible cost-based standard reflecting Commission concern over BSE rate levels, while permitting flexibility to promote efficient pricing and the development of innovative new services. The essential BSA component is priced "residually" -- set at a level that maintains overall revenue neutrality for the repriced BSA and BSE services within the local switching category compared to pre-ONA feature group arrangements.

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<sup>1</sup> Amendments of Part 69 of the Commission's Rules Relating to the Creation of Access Charge Subelements for Open Network Architecture, CC Docket No. 89-79, Report and Order, Order on Reconsideration, and Supplemental Notice of Proposed Rulemaking, 6 FCC Rod 4524 (1991) (Part 69 ONA Order), modified on recon. 7 FCC Rod 5235 (1992) other petitions for recon. pending. The BOCs' ONA plans had been previously approved. See Filing and Review of Open Network Architecture Plans, CC Docket No. 88-2, Phase I, 5 FCC Rod 3103 (1990) (ONA Amended Plans Order).

2. The Common Carrier Bureau (Bureau) suspended for one day the ONA tariffs of the Ameritech Operating Companies (Ameritech), imposed an accounting order, and initiated an investigation to determine whether these rates are just and reasonable.<sup>2</sup> This investigation was later expanded to include the ONA tariffs of other Bell Operating Companies (BOCs).<sup>3</sup> On April 16, 1992, in the ONA Designation Order, the Bureau designated ten issues in the ONA investigation, and directed one or more of the BOCs to respond to each issue.<sup>4</sup> Eight parties filed oppositions to the direct cases, and each BOC filed a reply.<sup>5</sup> The Bureau also required the BOCs to submit cost support materials to review by an independent auditor which reported its findings to the Commission and intervening parties. A key element of BSE cost support in this investigation consists of computer models that are intended to provide a measure of the unit cost of providing BSEs resident in BOC switches and software. Six of the regions employed the Switching Cost Investment System (SCIS) software provided under license by Bellcore to develop unit investments used to justify rates for BSEs; US West used SCIS as well as a second model developed in-house, the Switching Cost Model (SCM).<sup>6</sup>

3. Based on our examination of the ONA tariffs, the BOCs' direct cases, the oppositions and replies associated with those direct cases, and other information described in more detail below, we conclude that many BSE rates have been developed using specific costing methodologies that were in whole or part unreasonable, therefore resulting in rates that are unjust and unreasonable. At the same time, the methods employed by BOCs are generally sound apart from these specific deficiencies. Accordingly, we order the BOCs to revise their rates to reflect reasonable costing methodologies as set forth below, or provide a justification for using some other costing methodology. In addition, we are prescribing one element of BSE ratemaking methodology: BOCs must base their BSEs on prospective technology mixes. This is discussed in more detail below. Most of our recommended revisions tend to moderate the extent of BSE rate variation among BOCs, and tend to reduce BSE rates, while a few tend to increase BSE rates slightly. Overall, the variation in BSE rates of different carriers has been

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<sup>2</sup> Ameritech Operating Companies, Revisions to Tariff F.C.C. No. 2, Open Network Architecture, Memorandum Opinion and Order, 7 FCC Rod 257 (Com.Car.Bur. 1991) (Ameritech ONA Tariff Order), modified by Ameritech Operating Companies, 7 FCC Rod 948 (Com.Car.Bur. 1992) (correcting the ordering clause establishing an accounting order).

<sup>3</sup> Bell Atlantic Telephone Companies, et al., Open Network Architecture Tariffs, 7 FCC Rod 1512 (Com.Car.Bur. 1992) (ONA Investigation Order); Ameritech Operating Companies, et al. 7 FCC Rod 1936 (Com.Car.Bur. 1992); Nevada Bell, CC Docket No. 92-91, 7 FCC Rod 4051 (Com.Car.Bur. 1992) (Nevada Bell Order). In all these Orders, the Bureau suspended the tariffs before it for one day, and subjected those rates to accounting orders. The Bell Operating Companies are the Ameritech Operating Companies (Ameritech), Bell Atlantic Telephone Companies (Bell Atlantic), BellSouth Telephone Companies (BellSouth), New York Telephone Company and New England Telephone and Telegraph Company (NYNEX), Pacific Bell, Nevada Bell, Southwestern Bell Telephone Company (Southwestern Bell), and US West Communications, Inc. (US West).

<sup>4</sup> Open Network Architecture Tariffs of Bell Operating Companies, CC Docket No. 92-91, 7 FCC Rod 2604 (Com.Car.Bur. 1992) (ONA Designation Order).

<sup>5</sup> A list of parties filing pleadings, and the names by which we refer to them in this order, is included as Attachment A.

<sup>6</sup> In this Order, for simplicity in expression, we use the acronym SCIS in our general discussions that include both the SCIS and SCM cost models. US West developed rates using a combination of both models which results in unlawful rates (See paras. 57 ff). Therefore, specific remedial steps directed toward curing SCIS-based rates are not necessarily applicable to curing SCM-based rates. US West in its subsequent 1993 annual access filing based ONA rates on a later version of SCM not reviewed in this investigation. The adequacy of the later-developed SCM model will be considered in the pending investigation of annual 1993 access filings. 1993 Annual Access Tariff Filings, CC Docket No. 93-193, 8 FCC Rod 4960, *erratum*, 8 FCC Rod 5119 (1993).

reduced significantly.<sup>7</sup> Under our revisions to the BOCs' costing methodologies, the BOCs retain substantial pricing flexibility consistent with our policy of encouraging efficient pricing and innovation.<sup>8</sup> With respect to US West only, we conclude that US West has filed BSE rates so unsupported that, based on the record before us, its fundamental investment method must be found unreasonable. US West is required to file replacement, cost-supported ONA rates on the schedule established for other BOCs' corrective filings.

## II. BACKGROUND

### A. General

4. In the Computer III proceeding,<sup>9</sup> the Commission initiated a process for replacing the structural separation requirements for BOCs' enhanced service operations with nonstructural safeguards, including ONA. ONA was designed to unbundle certain services provided by BOCs, both to promote efficient and innovative use of the network by independent enhanced service providers (ESPs) and to prevent discrimination by BOCs in their offerings of BSEs to competing ESPs and BOC-owned ESPs. The Commission concluded that the provision of unbundled basic service "building blocks" would promote the ability of the BOCs' ESP competitors to compete effectively. Hence, the Commission ordered the BOCs to unbundle from their existing feature group access arrangements optional features called BSEs. The BOCs described this unbundling in detail in their ONA Plans, which were approved by the Commission in 1990.<sup>10</sup>

5. For purposes of tariff review, unbundled ONA service elements are considered as new services rather than restructured offerings, and so must satisfy the costing standard for new services established in the Part 69 ONA Order and subsequent ONA Reconsideration. The Part 69 ONA Order adopted a flexible, cost-based approach to pricing these ONA services that requires BOCs to base rates for BSEs on direct costs plus reasonable, uniform overheads. Specifically, this flexible cost-based approach permits carriers to adopt their own methodologies for developing direct costs and overhead costs, allows deviations from these uniform overhead loading methodologies if adequately justified, and gives BOCs an opportunity to earn a "risk premium" to encourage particularly risky new services.<sup>11</sup>

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<sup>7</sup> A chart specifying the effects of our requirements is included as Attachment B.

<sup>8</sup> See Part 69 ONA Order, 6 FCC Rcd at 4531, para. 38.

<sup>9</sup> Amendments of Section 64.702 of the Commission's Rules and Regulations, Report and Order, CC Docket No. 85-229, 104 PCC 2d 958 (1986); recon., 2 FCC Rcd 3035 (1987) (Phase I Reconsideration), further recon., 3 FCC Rcd 1135 (1988) (Phase I Further Reconsideration), second further recon., 4 FCC Rcd 5927 (1989) (Phase I Second Further Reconsideration), Amendments of Sections 64.702 of the Commission's Rules and Regulations, Report and Order, CC Docket No. 85-229, 2 FCC Rcd 3072 (1988) (Phase II Order), recon., 3 FCC Rcd 1150 (Phase II Reconsideration), vacated sub nom. California v. FCC, 905 F.2d 1217 (9th Cir. 1990), appeal pending sub nom. Illinois Bell Tel. v. FCC, No. 881364 (D.C. Cir. pet. for rev. filed May 16, 1988). See also Computer III Remand Proceedings: Bell Operating Company Safeguards and Tier 1 Local Exchange Company Safeguards, CC Docket No. 90-623, 6 FCC Rcd 7571 (1991).

<sup>10</sup> Filing and Review of Open Network Architecture Plans, CC Docket No. 88-2, Phase I, 5 FCC Rcd 3103 (1990) (ONA Amended Plans Order).

<sup>11</sup> Part 69 ONA Order, 6 FCC Rcd at 4531, paras. 42-44. In addition, in the ONA Reconsideration, we relaxed our new service requirements in cases in which a BOC is offering a new service sufficiently similar to an existing service that the BOC expects customer migration between services. In those cases, the BOC is allowed to establish any new service price less than or equal to the price of the existing service. ONA Reconsideration Order, 7 FCC Rcd at 5236-37, paras. 8-11.

6. In the wake of the Part 69 ONA Order in 1991, the BOCs tariffed several dozen different BSEs.<sup>12</sup> One example of a BSE is Automatic Number Identification, which identifies the billing number of the calling party. Other examples of separately useful BSEs include services used by burglar alarm companies, such as the Derived Channels (Monitoring) BSE,<sup>13</sup> and Uniform Call Distribution (UCD), which avoids over-burdening individual stations in large-scale operations such as reservation systems by distributing calls uniformly among incoming telephone lines.

7. To develop initial BSE rates, BOCs first enter switch usage data from traffic studies and capital costs from plant records into computer models. These computer models also contain detailed price and performance specifications from switch manufacturers about their switches. The SCIS/SCM models are used to generate unit investment for specific switch types, for each BSE. As an early step in this process, SCIS develops a "model office," which is an average of all the existing switches of a certain type in the BOC's network.<sup>14</sup> SCIS employs the model office to generate unit investments associated with providing each BSE over a particular switch type. Then the BOCs develop a total unit investment for each BSE by calculating a weighted average of the unit investments produced by each model office. In weighing the unit investments associated with particular switch types, the BOC either assumes the mix of switch technologies present in its network (the "embedded" approach) or a mix based on planned replacement decisions (the "prospective" technology mix). Finally, using these aggregate unit investment amounts as a base, the carriers apply direct cost factors and overhead loading factors to estimate the costs used to compute BSE rates.

#### B. Use of Proprietary Data to Compute Rates

8. In the ONA context, the Commission for the first time is involved in the detailed oversight of exchange carrier ratemaking processes that disaggregate local switching functions into discrete services. As explained in detail in the SCIS Disclosure Order<sup>15</sup> and related Freedom of Information Act decisions, review of this process inherently entails review of sophisticated computer models, as there is no other practicable method by which to reasonably and consistently recognize the use and associated investment of switch sub-components in a variety of service offerings.<sup>16</sup>

9. Both SCIS and SCM employ proprietary pricing and switch design information supplied by switch vendors. Bellcore and US West also hold intellectual property rights in the models. After reviewing SCIS/SCM in camera and evaluating manufacturers' assertions that they would

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<sup>12</sup> ONA Amended Plans Order, 5 FCC Rod at 3122-23, App. C.

<sup>13</sup> NYNEX offers this BSE under a trademark name, PULSENET.

<sup>14</sup> By a "type" of switch, we mean a brand of switch produced by a specific manufacturer, such as AT&T's 1AESS switch or 5ESS switch, or Northern Telecom's DMS 10 or DMS 100.

<sup>15</sup> Commission Requirements for Cost Support Material To Be Filed with Open Network Architecture Access Tariffs, 7 FCC Rod 1526 (Com.Car.Bur. 1992) (SCIS Disclosure Order). A companion Order adopted today denies MCI's application for review of the SCIS Disclosure Order. We consider below, in Section IV.B., contentions that the disclosure of these materials was inadequate for meaningful intervenor participation.

<sup>16</sup> It is well established that "the Administrative Procedure Act does not require that every bit of background information used by an administrative agency be published for public comment," as long as data sufficient to support the agency's actions were available to petitioners for comment. *B.F. Goodrich Co. v. Dept. of Transportation*, 541 F.2d 1178, 1184 (6th Cir. 1976), cert. denied, 430 U.S. 930 (1977); *In re Surface Mining Regulation Litigation*, 627 F.2d 1346, 1354 n.9 (D.C. Cir. 1980). As discussed more fully below, SCIS Redaction II did not prevent meaningful review of SCIS.

suffer competitive harm from the disclosure of the model or vendors' data used to develop and maintain it, the Bureau determined in the SCIS In Camera Order that the BOCs need not make these models available on the public record under the Freedom of Information Act (FOIA) or Commission Rules.<sup>17</sup> Specifically, FOIA Exemption 4 provides that "trade secret and commercial or financial information obtained from a person and privileged or confidential" is not subject to mandatory disclosure.<sup>18</sup> However, in the subsequent SCIS Disclosure Order, the Bureau established two discretionary procedures in order to balance the interests of Bellcore and switch vendors in keeping proprietary information confidential, and of intervenors in participating effectively in the ONA investigation. Specifically, the Bureau required Bellcore and US West, in cooperation with switch vendors, to develop redacted SCIS and SCM models, which would allow intervenors to observe the models in operation, and determine their sensitivity to changes in various input data values, without disclosing the most sensitive proprietary data. These redacted SCIS and SCM models, as they were later refined, were provided to intervenors subject to nondisclosure agreements.<sup>19</sup> In addition, the SCIS Disclosure Order required BOCs to hire an independent auditor to review SCIS, file a report with the Commission, and provide intervenors a redacted version of this report. The BOCs hired Arthur Andersen and Co. (Andersen) for this purpose.

10. On March 4, 1992, MCI made an ex parte presentation to the Bureau staff contending that the SCIS redactions were so excessive that the model had been made useless to intervenors. Bureau staff had also identified deficiencies in the first redaction, and the BOCs subsequently developed a second redacted model. This model, hereafter referred to as "Redaction II," is discussed below. Several intervenors filed comments under protective cover based on their examination of the redacted SCIS/SCM models and Andersen Report, and the BOCs filed replies under protective cover.<sup>20</sup>

### III. ISSUES

#### A. Flexible Cost-Based Rates and Rate Variation

11. Some intervenors have asserted that BSE rates that vary as much as these cannot all be reasonable.<sup>21</sup> Others state a more general position: that the Commission's "flexible cost-based approach" allows too much flexibility, and may lead to unreasonable or discriminatory rates.<sup>22</sup> The BOCs respond that the flexibility provided by SCIS and other aspects of their

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<sup>17</sup> Commission Requirements for Cost Support Materials To Be Filed with Open Network Architecture Access Tariffs, 7 FCC Red 521, 521 n.4 (Com.Car.Bur. 1991) (SCIS In Camera Order); App'n for Review denied, 8 FCC Red 422 (1993); Allnet Communications Services, FOIA Control No. 92-266, 7 FCC Red 6329 (1992) (Allnet Order), upheld Allnet Communications Services, Inc. v. FCC, 800 F.Supp. 984 (D.D.C. 1992).

<sup>18</sup> Freedom of Information Act, 5 U.S.C. § 552(b)(4).

<sup>19</sup> See Letter from James F. Britt, Bellcore, to Chief, Common Carrier Bureau (July 31, 1992).

<sup>20</sup> In addition to the pleadings and the Andersen Report, the Bureau by its letter of December 11, 1992, directed Andersen to respond to several queries developed by the Bureau and intervenors. Furthermore, Andersen and the BOCs were required to comply with a data request issued by the Bureau on December 14, 1992.

<sup>21</sup> Sprint Opposition at 2-3; GSA Opposition at 2-3; MCI Opposition at 3-4; Ad Hoc Opposition at 7-9.

<sup>22</sup> Sprint Opposition Appendix at 1-2; Metromedia Opposition at 7-8; Wiltel Opposition at 17-18; Ad Hoc Opposition, Appendix I, at 4-6; MCI Opposition at 34-35. See also Sprint Opposition Appendix at 3-5 (criticizing variation in BSE rates resulting in differences in the way BOCs aggregate data, and recommending use of benchmarking in review of BSE rates).

ratemaking process is consistent with the Commission's flexible cost based approach, and any further limits on their flexibility would be inconsistent with the Part 69 ONA Order.<sup>23</sup>

12. Dramatic rate variance alone does not establish that individual rates are unreasonable. Rather, we determine the causes of the variance and assess whether some ratemaking flaw makes some of these variant rates unreasonable. Legitimate reasons for rate variance include differences in demand patterns, population density, or network configurations. As to the BOCs' assertion that any revision to their rates would conflict with the Part 69 ONA Order, the "flexible cost-based approach" described in the Part 69 ONA Order was intended to give carriers flexibility sufficient to encourage efficiency and innovation, not complete freedom in developing rates.

Once the direct costs have been identified, LECs will add an appropriate level of overhead costs to derive the overall price of the new service. To provide the flexibility needed to achieve efficient pricing, we are not mandating uniform loading, but BOCs will be expected to justify the loading methodology they select as well as any deviations from it.

Part 69 ONA Order, at 4531, para. 44 (emphasis supplied). The Commission's intent was to permit carriers to establish a reasonable and consistent method for their identification of direct costs, with the flexibility needed for efficient pricing to be achieved in the administrative loadings applied to the direct cost figures. Thus, limiting carriers' ratemaking discretion, as we do in this Order below, is entirely consistent with our intent in the Part 69 ONA Order.<sup>24</sup> None of these limitations on ratemaking flexibility noticeably reduce the incentives we established in the Part 69 ONA Order for development of innovative new services and efficient prices.

13. In considering whether carrier ratemaking discretion associated with specific designated issues has led to the development of unreasonable rates, we therefore have considered (i) the specific cost justification requirements announced in the Part 69 ONA Order and (ii) the consistency of specific BOC procedures or assumptions with general economic theory, as recognized in Commission policy. In addition, while not directly related to rate levels *per se*, we have considered the extent to which such exercises of discretion are exempt from public disclosure and, therefore, precluded from examination by interested parties. A recurring challenge in this proceeding has been to afford intervenors, accustomed to full disclosure of carriers' cost support materials under our Rules, a meaningful opportunity to review ratemaking processes obscured by legitimate proprietary concerns. This difficulty is inherent in the use of models, as explained previously, but to the extent that ratemaking discretion can be exercised in a more publicly accessible stage of the process without compromising carrier flexibility, we consider the exercise of discretion at inaccessible stages to be a less reasonable approach.

14. The issues surrounding the BOCs' BSE rate development process can be broken down into three groups. First, there are issues presented by the inputs chosen by BOCs to put into

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<sup>23</sup> PacTel Reply at 1; US West Reply at 6-7; BellSouth Reply at 3-4, 18, 25-26; Ameritech Reply at 2; NYNEX Reply at 6; PacTel Reply at 7-8; Bell Atlantic Reply at 6-7.

<sup>24</sup> GSA and Metromedia contend that the issues designated by the Bureau do not adequately focus discussion on the sources of variation or unreasonableness of BSE rates. GSA Opposition at 7-8; Metromedia Opposition at 3-4. According to Wiltel and Ad Hoc, the small costs associated with many BSEs, other than ANI, do not warrant the unbundling of those BSEs. Wiltel Opposition at 4, 13-15; Ad Hoc Opposition, Appendix I, at 10-11. Ad Hoc concludes that the BOCs have not justified any ONA rates, and so they should all be rejected. Ad Hoc Opposition, Appendix I, at 10-11. These petitioners raise issues which have been resolved in prior Commission Orders, or are nothing more than misplaced petitions for reconsideration of the Part 69 ONA Order or the ONA Designation Order. Thus, none of these issues warrant rate revisions.

the SCIS/SCM models. Second, the equations within the SCIS/SCM models include variables that enable the BOCs to reflect their specific networks and service areas in their BSE cost development. Third, SCIS outputs only represent the BOCs' unit investment in each type of switch for each BSE. The BOCs then develop direct costs based on switch investment, and overhead costs, to develop BSE rates. There are several issues surrounding the BOCs' development of direct cost factors and overhead loading factors. These issues are considered below.

## B. SCIS Input Issues

### 1. Representative Model Offices

15. SCIS bases its BSE investment studies for each switch technology on a "model office." As already noted, each model office is an average of all the existing switches of a certain type in the BOC's network. Whether SCIS produces reasonable results depends in part on whether the model office is based on a representative sample of actual switches.<sup>25</sup> Ameritech, BellSouth, Nevada Bell, NYNEX, Pacific Bell, and Southwestern Bell state that they developed their model offices on all or practically all the switching offices from which they will provide BSE services.<sup>26</sup> Bell Atlantic, on the other hand, uses a statistical sampling technique for its larger study areas. Bell Atlantic bases its model office on a sample of 60 percent of the switching offices.<sup>27</sup> For all but two BSEs, US West used all of its switches to develop its model offices. For Make Busy Key and Message Delivery, US West used only switches in its central region (formerly Mountain Bell) in developing its model office.<sup>28</sup> Several intervenors assert that the data available to them is insufficient to determine whether the BOCs have skewed their sampling techniques or strategically selected switches for inclusion in the model office, and emphasize the need both for standardized sampling procedures and for current data.<sup>29</sup>

16. The Commission strongly prefers that BOCs base their model offices on all switching offices in their service regions. This eliminates a possible source of bias in rate development. We conclude that the model offices of Ameritech, Nevada Bell, NYNEX, Pacific Bell, and Southwestern Bell are generally representative of offices that will be used to provide BSEs. We also conclude that Bell Atlantic's sampling techniques produce model offices that are representative of offices that will be used to provide BSEs. Bell Atlantic's statistical sampling

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<sup>25</sup> For each switching office and remote included in the carriers' investment cost studies, the carriers were directed to provide on the record the corresponding schedule for switch replacement, and switch capacity at replacement, that are used as inputs to SCIS. None of the intervenors commented specifically on the switch exhaustion assumptions provided in the BOCs' direct cases. Based on our examination of these assumptions, they appear reasonable, and we see no reason to require revision of these assumptions. Ad Hoc recommends generally that BOCs be required to specify their switch exhaustion assumptions for a standard period three years into the future. Ad Hoc Opposition, Appendix at 6-7, 12. However, Ad Hoc has not explained why a standardized three year forecasting period would be more instructive than the switch exhaustion data actually submitted by the BOCs in their direct cases.

<sup>26</sup> Ameritech Direct Case at 2; BellSouth Direct Case at 24-25; Nevada Bell Direct Case at 1-2; Nevada Bell Supplemental Direct Case at 2-3; NYNEX Direct Case, Appendix A at 1; Pacific Bell Direct Case at 1-2; Southwestern Bell Direct Case at 3-4.

<sup>27</sup> Bell Atlantic Direct Case at 2-3.

<sup>28</sup> US West Direct Case at 2-3.

<sup>29</sup> Wiltel Opposition at 15-17; MCI Opposition at 16-19; Ad Hoc Opposition, Appendix I, at 8-9; Metromedia Opposition at 11; Sprint Opposition Appendix at 4; Ad Hoc Opposition, Appendix I, at 8-9. But see GSA Opposition at 4-5. Wiltel criticizes Arthur Andersen for not discussing the averaging process used by BOCs to develop model offices. Wiltel Opposition at 35-36.



technique selects switching offices in a random fashion which will not skew the resulting model office in any way. Furthermore, Bell Atlantic's sample size of 60 percent is large enough to provide statistically reliable sampling results.

17. Because SCIS does not have sufficient capacity to accommodate the large number of switching offices in BellSouth's service region, BellSouth created and employed a "user-defined study" to develop model offices. Andersen examined BellSouth's user-defined study as part of its Supplemental Report.<sup>30</sup> Andersen verified that SCIS cannot accommodate all the switching offices in BellSouth's region, and that the user-defined study produces results which are virtually identical to the result BellSouth would have obtained if it could include all its switching offices in the model office.<sup>31</sup> Based on Andersen's findings and our own review of BellSouth's user-defined study, we conclude that BellSouth's user defined study is representative of offices that will be used to provide BSEs.<sup>32</sup>

18. In contrast, US West provides no reasonable explanation for using only central offices in its central region to develop model offices for Make Busy Key and Message Delivery BSEs.<sup>33</sup>

Nor has US West shown that its central region is representative of its entire service territory. The US West rates for these BSEs are therefore unreasonable because they are based on an unexplained methodology which could distort rates, and we find those rates unlawful on this ground. Specific instructions regarding US West are discussed in Section III.E. of this Order, *infra*.

## 2. Noncurrent SCIS Models and Traffic Data

19. Bellcore updates the SCIS model several times each year to reflect switch manufacturers' hardware and software upgrades.<sup>34</sup> The algorithms in SCIS are based in part on actual traffic data for all of the switching offices the BOCs use in a study. Staff review and the Andersen Report indicate that outdated SCIS versions and traffic data each can significantly affect SCIS investment studies.<sup>35</sup>

20. Allnet and AT&T contend that none of the BOCs have justified their use of either

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<sup>30</sup> See Letter from Chief, Tariff Division, to James F. Britt, Bellcore, December 11, 1992 (December 11 Letter).

<sup>31</sup> Supplemental Arthur Andersen Report at 9.

<sup>32</sup> Where a carrier elects to depart from the model office procedures of SCIS and utilize a "user-defined study," it must, in the ONA context, describe the SCIS limitations that require the departure and demonstrate the equivalence of its user-defined study results to SCIS operations under standard settings, as BellSouth has done in this context.

<sup>33</sup> See US West Direct Case at 2-3.

<sup>34</sup> The frequency of updates to reflect changes in switch technology is one distinguishing characteristic between SCIS and SCM. See Andersen Report at 48, 71; Supplemental Andersen Report at 54. The examination of models by Commission staff confirms that SCIS is updated much more often than SCM. For example, in its ONA filing, US West used SCM to model SESS switch software version SE5, which became available in 1989, while version SE6.1 became available in early 1991. For the DMS-NTX40 switch, US West used SCM to model software version BCS29, which was available from March to September 1990, while version BCS31 became available in January 1992. See Andersen Report, Appendix 18; Supplemental Andersen Report, Exh. 5.

<sup>35</sup> See Supplemental Andersen Report at 33-35.

outdated versions of SCIS or old traffic studies.<sup>36</sup> PacTel contends that it is appropriate to use different versions of SCIS because BOCs have different versions of vendors' software controlling their switches.<sup>37</sup> BellSouth insists that it used the most current version of SCIS available at the time of its most recent traffic study, and asserts, in any event, that the effect of different SCIS versions on rates is small.<sup>38</sup> NYNEX notes that it did not use the most current version of SCIS for the BSEs offered by New England Telephone and Telegraph Co. (NET), but maintains that no major updates in switch technology occurred since the release of the SCIS version used by NYNEX.<sup>39</sup> Many carriers point out that traffic studies require considerable effort and cannot be performed on short notice.<sup>40</sup> Several BOCs insist that model office input data are updated on a regular basis, and that the data are updated periodically to reflect changes in demand.<sup>41</sup> NYNEX and US West maintain that traffic studies have little effect on BSE rates.<sup>42</sup> BellSouth maintains that its traffic input data varies little over time.<sup>43</sup>

21. We have determined, based on our internal review of SCIS and on Andersen's supplemental analysis, that SCIS will not derive accurate unit investments unless the switches used to provide BSE services (including hardware and software) for which the study is undertaken are accurately reflected in the SCIS version used in the cost analysis.<sup>44</sup> Use of different versions of SCIS can often have a significant effect upon SCIS outputs, and therefore, upon BSE rates.<sup>45</sup> To allow carriers to select any version of SCIS for investment studies, or to use models and input data that do not reflect the actual plant used to provide the service, does not lead to rates designed to recover reasonable costs as required in the Part 69 ONA Order. SCIS is a forward-looking model that calculates investment based on switch replacement costs rather than historical or embedded costs, and the more recent SCIS software provides the most up-to-date design and pricing basis from which to estimate future BSE-specific investment. Therefore, we conclude that any carrier using SCIS to develop BSE investment must rely on

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<sup>36</sup> Allnet Opposition at 6-7; AT&T Opposition at 9-13. See also WilTel Opposition at 39 (criticizing use of outdated versions of SCIS); Allnet Opposition at 7-8 (noting that Andersen discussed Ameritech's and NYNEX's use of old versions of SCIS); Ad Hoc Opposition, Appendix at 12-13 (recommending that the Commission require BOCs to use the most recent version of SCIS available).

<sup>37</sup> PacTel Reply at 2.

<sup>38</sup> BellSouth Reply at 26-27.

<sup>39</sup> NYNEX Reply, App. at 8-9, as modified by NYNEX Erratum at 2-3.

<sup>40</sup> NYNEX Reply, App. at 8.

<sup>41</sup> Bell Atlantic Reply at 6; Ameritech Reply at 6; Southwestern Bell Reply at 9-10.

<sup>42</sup> NYNEX Erratum at 4-5, revising NYNEX Reply, App. at 8-9; US West Reply at 15-16.

<sup>43</sup> BellSouth Reply at 27.

<sup>44</sup> WilTel complains that the Anderson Report does not adequately display the effects of using different SCIS versions on BSE rates. WilTel Opposition at 30-31. Therefore, the Bureau directed Andersen in its Supplemental Analysis to examine further the effects of different SCIS versions on BSE rates.

<sup>45</sup> For example, the Anderson data show that for its Multiline Hunt Group UCD Line Hunting BSE, BellSouth used an older SCIS version. Based on the older version BellSouth filed direct recurring costs of \$5.91. If, however, it had used the current SCIS version, direct recurring costs would have been \$3.90, or a reduction in direct costs of approximately 34 percent.

Metromedia recommends that the Commission develop some means to verify that future updates to investment models are reasonable. Metromedia Opposition at 4. We delegate authority to the Common Carrier Bureau to develop procedures for review of future model updates.

the most current version of SCIS available for its switch and associated operating software, or explain its use of an older version.<sup>46</sup>

22. One of the issues the staff referred to Andersen was the extent to which use of outdated traffic studies may affect calculation of BSE rates.<sup>47</sup> Andersen found that the age of traffic studies can significantly affect BSE rates when increases in traffic are not reflected in the SCIS investment studies.<sup>48</sup> We cannot rely on old traffic studies, which may no longer accurately reflect current traffic patterns, to justify BSE rates. From the Andersen information, it appears that all carriers except US West have now used traffic data and studies sufficiently recent to accurately reflect current traffic characteristics. We require all BOCs to continue to use recent traffic studies in future ONA tariff filings. Instructions for US West rate revisions are discussed in Section III.E. of this Order, infra. ::

23. Finally, because traffic studies are conducted less frequently than SCIS and switch revisions occur, and do not consistently affect SCIS investment outputs to the same degree, we cannot accept BellSouth's argument that SCIS versions contemporaneous with traffic studies are inherently reasonable. Carriers should use the most recent SCIS version except when they can demonstrate that a less recent SCIS, when used in conjunction with older traffic study data, does not generate investment outputs that are so distorted as to be unreasonable.

### 3. Cost of Money

24. SCIS allows BOCs to recognize their time value of money through a discount factor called the "cost of money" factor. The ONA Designation Order directed BOCs to justify use of a cost of money in excess of the Commission's current authorized rate of return of 11.25 percent. The BOCs argue that 11.25 percent is merely the industry average that was developed in 1989, and that this is not appropriate for a forward-looking cost model like SCIS.<sup>49</sup> Most BOCs also assert that variations in cost of money produce de minimis effects on BSE rates.<sup>50</sup>

25. The BOCs are incorrect in arguing that they should be allowed to use cost of money factors that they believe will be necessary to attract capital in the future. While the Commission's rate of return prescription reflects an industry average that was developed in

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<sup>46</sup> The use of an outmoded version of SCIS to reach NET rates is adequate, in light of NYNEX's explanation and demonstration that no major updates in switch technology had occurred that would affect unit investment results.

<sup>47</sup> See December 11 Letter.

<sup>48</sup> For example, the Andersen data show that for a specific switch technology, Ameritech used as an input for the Multiline Hunt Group BSE, a value of 11.8 hunt group calls terminated during the busy hour, whereas the BOC average was 5.51 calls terminated. Based on its traffic assumption of 11.8, Ameritech filed direct recurring costs of \$1.22, whereas if its direct recurring costs were based on the BOC average, they would have been \$0.88, or a reduction in direct costs of 28 percent.

<sup>49</sup> The BOCs contend that their cost of money factors represent the forward-looking cost of debt and equity. Ameritech Direct Case at 3-4; Bell Atlantic Direct Case at 3-4; BellSouth Direct Case at 27-28; Nevada Bell Direct Case at 2-3; NYNEX Direct Case, Appendix A at 3; Pacific Bell Direct Case at 3; Southwestern Bell Direct Case at 4-5; US West Direct Case at 3-5.

<sup>50</sup> Ameritech Direct Case at 4-5; BellSouth Direct Case at 28-29; Nevada Bell Direct Case at 3; Nevada Bell Supplemental Direct Case at 3; Pacific Bell Direct Case at 4; Southwestern Bell Direct Case at 4-5; US West Direct Case at 3-5; Bell Atlantic Direct Case at 4-5. For its part, Bell Atlantic maintains that, if it used the 11.25 percent figure for cost of money, then the unit investment for its BSEs would be reduced by an average of 1 percent for analog switches, 1.5 percent for digital switches, and in no case would the reduction be more than 6 percent. Id.

1989, it took into account fluctuations in the costs of capital in the future.<sup>51</sup> The BOCs have not shown that they will need a cost of money exceeding 11.25 percent to attract capital in the future. Accordingly, absent a stronger evidentiary showing, we require the BOCs to develop their BSE rates using a cost of money factor not to exceed 11.25 percent.

### C. Assumptions Made When Using SCIS

#### 1. Average or Marginal Unit Investment Studies

26. Conceptually, allocation of common investment involves two stages: (1) distinguishing common investment from BSE-specific investment; and (2) allocating common investment in an economically rational way between two or more services. In SCIS, the Average Study and Marginal Study methods are the two ways to allocate shared or "common" investment among several services (the various BSEs and BSAs). For each BSE, the common investment is combined with the BSE-specific investment for each feature. The choice of Average or Marginal Study methods has a substantial effect on the unit investment developed by SCIS.

27. SCIS implements this two-stage procedure in the following way. As a first step, SCIS broadly defines common investment as investment that is insensitive to the level of demand for the various BSEs and BSAs, up to the capacity of the switch. The SCIS term for this common investment is "Getting Started Costs" (GSCs). The dollar value of GSCs is significant and includes all hardware and software that cannot be directly assigned to lines, calls, or holding time.<sup>52</sup> As described below, the identification of GSCs with common investment is not, however, a final determination.

28. The next step in SCIS is determining whether the Average Study method or Marginal Study method will be used for BSE investment studies. Under the "average study" method, SCIS assigns a portion of common switching investment to each BSE (and, implicitly, to the BSAs),<sup>53</sup> while the "marginal study" method does not routinely assign any common switching investment to the BSEs. There are two exceptions to the latter method: where the SCIS user assumes that provision of the BSE will accelerate the exhaustion of switch capacity (the "exhaust before replacement" assumption) or for other reasons directs the model to assign some common investment to the BSE under study (the "capacity override" assumption), some common investment will be assigned. Thus, two variations of the Marginal Study method recharacterize some GSCs as demand sensitive and reassign them as BSE-specific investment.<sup>54</sup> Neither the usual Marginal Study method nor the Average Study method recharacterize any GSCs.

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<sup>51</sup> See Represcribing the Authorized Rate of Return for Interstate Services of Local Exchange Carriers, CC Docket No. 89-624, 5 FCC Rod 7507, 7532 paras. 214-215 (1990) (1990 Represcription Order), recon. denied, 6 FCC Rod 7193 (1991) (1990 Represcription Reconsideration Order), positions for review docketed sub nom., Illinois Bell Telephone Co., et. al. v. FCC, No. 91-1626 (D.C. Cir., filed January 11, 1991).

<sup>52</sup> GSCs include central processor investment, and certain other investment associated with maintenance, testing, and certain underutilization of capacity (i.e., the cost of unused capacity that must be allocated to the various features using the switch).

<sup>53</sup> As required in this proceeding, the SCIS develops costs for BSEs only, not BSAs. Because BSAs are priced as the residual of total switching costs after removal of all BSE costs, however, common costs that are not assigned to BSEs are captured by BSAs.

<sup>54</sup> In the "exhaust before replacement" variation, SCIS analyzes the situation in which provision of a BSE causes the switch to exhaust its capacity prior to the time it would otherwise be replaced. In such a case, provision of the BSE does, in fact, cause additional GSCs and these are, therefore, assigned directly to the BSE. The "capacity override" option analyzes a similar situation, but allows SCIS users to quantify the amount of GSCs that are directly assigned to the BSE.

29. After thus adjusting GSCs to recognize any exceptions directed by the SCIS user, the Average Study method allocates a portion of the adjusted GSCs to the BSE. Under the Average Study method, GSCs are allocated to each BSE based on relative central processor usage (cycles or milliseconds per busy hour, depending on the type of switch). The Marginal Study method allocates no *adjusted* GSCs to the BSE.

30. To determine the reasonableness of this aspect of BOC ratemaking, the Commission must ~~must~~ determine whether the BOCs have reasonably identified common investment. Distinguishing common investment from other switching investment is a difficult problem, both conceptually and practically. Whether or not investment is identified as common depends on assumptions made about such matters as the expected life, capacity, utilization and type of the switch. In large part, decisions concerning these matters properly rest on the expertise of the companies' engineers and cost analysts. Unless there is reason to believe that the companies have relied on unreasonable analysis, the Commission normally defers to their judgment. In the ONA context, neither the Commission's review nor the Andersen report has revealed obvious reliance on unreasonable analysis. Thus we believe, at present, that the BOCs' identification of common investment by the SCIS model is reasonable.

31. The second stage of our analysis requires that we determine whether the BOCs have reasonably allocated common investment to the BSEs. Several commenters suggest that we should prescribe use of the SCIS marginal investment study, because they believe BOCs should not include common switching investment in BSE rates.<sup>55</sup> Southwestern Bell and BellSouth claim that marginal investment studies produce the appropriate cost floor on which to base rates.<sup>56</sup> In contrast, MCI argues that investment developed through marginal investment studies allow SCIS users to underprice some services, which MCI believes would lead to overpricing of other services. MCI also maintains that the marginal investment study as described by BellSouth is flawed, because additional demand leading to premature switch exhaustion is not considered.<sup>57</sup> We believe that the switch exhaustion assumptions used by BellSouth are reasonable. See n. 25, *supra*.

32. The allocation of common investment among various services in an economically rational way has been a subject of considerable study by economists, regulators, and other public policy makers. One traditional method of allocating common investment is the fully distributed cost (FDC) method in which common investment is allocated based on measures of relative use. Other methods of allocating common investment include the Ramsey pricing method, which looks to the characteristics of demand for several services rather than their use

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<sup>55</sup> Bell South Direct Case at 21-22; Southwestern Bell Direct Case at 2; Witel Opposition at 5-8; Metromedia Opposition at 7; Allnet Opposition at 4-5. But see Ameritech Reply at 4-5; GSA Opposition at 4 (reasonable arguments can be made for either Average or Marginal). See also Ad Hoc Opposition, Appendix I, at 6-8 (Use of Average or Marginal Cost Analysis is of secondary importance to the BOCs' assumptions regarding switch exhaustion); BellSouth Direct Case at 14-21 (the ONA investigation should focus on whether the pricing methodology is reasonable rather than whether it differs from the methodology of other BOCs).

<sup>56</sup> Southwestern Bell Direct Case at 2; BellSouth Direct Case at 9-12.

<sup>57</sup> MCI Opposition at 5-8; 9-11. Practically, the result would be that, to the extent that BSE rates failed to recover overhead costs, those costs would be recovered through the local switching BSA rates.

of common investment to determine appropriate prices.<sup>58</sup>

33. Applying the Average Study method to common investment most closely resembles FDC; all BSEs and BSAs receive allocations of common investment based on relative use of, e.g., the central processor. The Marginal Study method departs from FDC in generally allocating no common switching investment to the BSEs, though as noted, some options in the Marginal Study method will allocate some common switching investment. Depending on the relative elasticities of the BSEs and BSA, the marginal study method may, in fact, enable a Ramsey pricing approach. Without knowledge of the relative elasticities, however, it is not possible to determine whether this would be the case.<sup>59</sup> Because there is an insufficient record in this proceeding regarding the theoretical and practical implications of the use of Ramsey pricing, we believe it is premature to endorse that approach. We note, however, that the Marginal Study method has the advantage of encouraging, through lower BSE prices, innovative services employing BSEs. We find that this advantage outweighs the very small increase in BSA prices that will be passed through to interstate switched access rates as a result. We therefore permit the use of the Marginal Study method for ONA.

34. At this stage, however, the implications of the marginal and average study methods for pricing individual BSEs are not fully developed, and there is insufficient evidence in the record from which to require use of either method. Although future experience may prove one of the methods, or some other method, preferable, we believe at this time that neither method is unreasonable for purposes of pricing ONA services. Therefore, we allow the LECs the flexibility to employ either method.<sup>60</sup>

## 2. Accuracy of Switch Prices

35. The SCIS model allows BOCs to develop unit investments on the basis of different cost assumptions about the switches. Under the "engineered, furnished, and installed" assumption, the switch price includes the costs of actually installing the switch; under the "material" assumption, the price includes only the price of the switch itself. Parties have argued for a prescription of one method or the other, or a loading factor to reflect the difference between the two.<sup>61</sup> NYNEX and BellSouth maintain that, because the carriers' actual ordering and

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<sup>58</sup> See Ramsey, F., "A Contribution to the Theory of Taxation," *Economic Journal*, Vol. 37, No.1, pp. 47-61, 1927. See also, e.g., William Baumol, *Economic Theory and Operations Analysis*, pp. 513-16, and Kenneth Train, *Optimal Regulation*, Chapter 4. See also Allnet Opposition at 4-5 (arguing in favor of Ramsey pricing). Essentially, this method is based on the assumption that, in monopoly markets, overall consumer welfare is maximized by allocating common costs in proportion to the utility of the service to the consumer. Under this method, services for which demand is relatively elastic would be allocated a proportionately small amount of common costs, and services for which demand is relatively inelastic would be allocated a proportionately larger amount of common costs. As an example, consider several word processor users connected to a central processor. The central processor's software is configured for a multi-user environment and the cost of the software is fixed and will not vary with the number of users, up to a certain capacity. An FDC standard might assign the costs of the software to word processor users based on each user's total minutes on the system. A Ramsey pricing standard would assign the costs of the software to users based on its utility to each customer. Those for whom the ability to use the system was essential would be assigned a higher per minute cost than those for whom system use was discretionary. Such a standard would involve estimating elasticities of demand for each class of users.

<sup>59</sup> Because BSEs have not been generally available to customers, no studies have been conducted regarding the relative demand elasticities of BSEs and BSAs. No party has provided us with convincing arguments regarding the relative elasticities of the BSEs and BSAs. But see Allnet Opposition at 5; Metromedia Opposition at 6-7.

<sup>60</sup> However, a single investment study method must be used consistently across a study area to reach closure for overall investment, and all study areas included in development of a specific rate should employ the same investment study method.

<sup>61</sup> Ad Hoc Opposition, Appendix I, at 12.

installation practices vary, we should permit carriers to select the switch costing investment methodology that comports with their actual practice regarding the booking of installation costs.<sup>62</sup> We agree with NYNEX and BellSouth that no instruction is necessary in this area.

#### D. SCIS Output Issues

##### 1. Embedded or Prospective Costs

36. In order to identify the direct cost of a service, a carrier must first identify the inputs necessary to provide the service. To translate these inputs into costs, carriers must choose either the inputs that are reflected in its current mix of facilities, at the price it originally paid for those inputs, i.e., embedded costs, or the inputs it would purchase today at the price it would have to pay to purchase those inputs today, i.e., prospective or "forward-looking" costs.

37. BOCs develop BSE rates from a weighted average of switch-specific SCIS investment costs. These weighted averages can be based on the current, or "embedded," mix of switches used by the BOCs to provide BSEs, or on a future, or "prospective," mix of switches. In the ONA Investigation Order, the Bureau identified as an area of concern the appropriate mix of switching technologies on which to base BSE rates. Specifically, the Bureau noted that many BSEs are more expensive to provide from older switch technologies than from newer switches. The Bureau tentatively found that a prospective view might more accurately reflect the direct costs of providing BSEs in the future, and might also encourage cost-effective technological improvements by discouraging BOCs from using old and costly types of switches when more cost-effective types of switches are available.<sup>63</sup>

38. All BOCs, including those who do not include analog switch costs in their BSE rates, maintain that it is appropriate to include analog switch costs in BSE rates. Several BOCs plan to continue to use analog switches to provide BSEs for the foreseeable future, and in some cases it is more economical to expand capacity in an analog switch to provide a BSE than to replace it with a digital switch.<sup>64</sup> Pacific Bell and BellSouth maintain that including analog switch costs in BSE rates would be a forward-looking approach for those carriers who intend to continue using analog switches.<sup>65</sup> US West believes it is appropriate to include analog switch costs in BSE rates because, at the time US West conducted some of its cost studies, the BSEs were available only from analog switches.<sup>66</sup> Several carriers assert that some BSE rates go up when analog switches are excluded from the technology mix,<sup>67</sup> and staff review and the independent auditor's analysis confirm this.

39. Many intervenors contend that the BOCs' arguments contending that analog switches

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<sup>62</sup> BellSouth Reply at 27; NYNEX Reply, App. at 9-10.

<sup>63</sup> ONA Investigation Order, 7 FCC Rcd at 1515, paras. 17-18.

<sup>64</sup> Ameritech Direct Case at 5-6; Bell Atlantic Direct Case at 5-6; NYNEX Direct Case, Appendix A at 4; Pacific Bell Direct Case at 5-6; Southwestern Bell Direct Case at 5-6.

<sup>65</sup> Pacific Bell Direct Case at 5-6; BellSouth Direct Case at 29-31. See also Southwestern Bell Direct Case at 5-6 (use of "embedded" technology mix is appropriate when carrier plans to continue to use that technology mix.)

<sup>66</sup> US West Direct Case at 5-6.

<sup>67</sup> Ameritech Direct Case at 6 and Att. C; Bell Atlantic Direct Case at 6-7; NYNEX Direct Case, Appendix A at 4-5; Pacific Bell Direct Case at 6 and Att. C; US West Bell Direct Case at 6.

should be included miss the point. Rather, the issue should be whether analog switches will be used to replace existing switches in the future.<sup>66</sup> Witel emphasizes that, although some individual BSE rates would go up if analog switches are included, total expected BSE revenue would decrease by 61 percent.<sup>66</sup> Alternatively, Ad Hoc believes it is reasonable to base technology mix on the existing mix of switch facilities, since estimates of future technology mixes are open to BOC manipulation.<sup>70</sup> However, if a forward-looking technology mix is used, Ad Hoc believes it is very important to insure that the cost development and ratemaking factors utilized by the BOCs are consistent with their engineering plans over a reasonable period of time, such as three years, and that this projection is adequately documented.<sup>71</sup> GSA believes that the BOCs have shown that their use of analog switches in establishing technology mixes is not unreasonable.<sup>72</sup> Most BOCs and most intervenors agree that a prospective technology mix is preferable, although they disagree on the extent to which this should include analog switches.<sup>73</sup>

40. The Part 69 ONA Order specifies that rates for BSEs must be cost supported under the new service standard for price cap filings.<sup>74</sup> We conclude that, for purposes of this proceeding, prospective costs are the economically relevant costs to use to support BSE rates, because they represent the costs a profit maximizing firm would consider in making a business decision to provide a new service.<sup>75</sup> Historical costs associated with plant already in place are essentially irrelevant to the decision to enter a market since these costs are "sunk" and unavoidable and are unaffected by a new product decision. We also believe that use of prospective costs for new BSEs is in the public interest, because the resulting generally lower BSE prices will encourage innovative services.<sup>76</sup> In contrast, the embedded technology mix advocated by Ad Hoc would not provide the desired economic incentives for BOCs to provide BSEs.<sup>77</sup>

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<sup>66</sup> Witel Opposition at 9-11; Allnet Opposition at 6-7; Metromedia Opposition at 4-5.

<sup>66</sup> Witel Opposition at 11-13.

<sup>70</sup> Ad Hoc Opposition at 8.

<sup>71</sup> Ad Hoc Opposition, Appendix I, at 9-10. See also MCI Opposition at 13-21.

<sup>72</sup> GSA Opposition at 5.

<sup>73</sup> Ameritech Direct Case at 5-6; Bell Atlantic Direct Case at 5-6; NYNEX Direct Case, Appendix A at 4; Pacific Bell Direct Case at 5-6; Southwestern Bell Direct Case at 5-6; Pacific Bell Direct Case at 5-6; BellSouth Direct Case at 29-31; Witel Opposition at 9-11; Allnet Opposition at 6-7; Metromedia Opposition at 4-5; GSA Opposition at 5. See also Southwestern Bell Direct Case at 5-6 (use of "embedded" technology mix is appropriate when carrier plans to continue to use that technology mix.)

<sup>74</sup> Part 69 ONA Order, 6 FCC Rod at 4529, para. 25.

<sup>75</sup> See MCI Comm. Corp. v. AT&T Co., 708 F.2d 1081, 1116-17 (7th Cir. 1983); Areeda and Turner, Predatory Pricing and Related Practices Under Section 2 of the Sherman Act, 88 Harv. L. Rev. 716 (1975).

<sup>76</sup> The Supplemental Anderson Report indicates the effect of altering the ratemaking process to rely on embedded technology mixes would be to increase aggregate BSE rate levels. For example, the Anderson data indicate that the average investment required to support the ANI BSE using prospective technology weightings is \$0.000334, and \$0.000612 using embedded technology weightings, an average increase of 83 percent in average investment required to support ANI.

<sup>77</sup> In the ONA Designation Order, 7 FCC Rod at 2605, BOCs were directed to reconcile use of embedded technology mixes with the four goals of BSE pricing we announced in the Part 69 ONA Order, 6 FCC Rod at 4531, para. 38. None of the parties' responses leads us to reconsider the conclusion we reached above, that a prospective technology mix is the most reasonable method by which to develop BSE rates. US West Bell Direct Case at 6; Ameritech Direct Case at 6; Metromedia



41. We therefore hold that the filed ONA rates, to the extent they are based on the carrier's technology mix and costs associated with embedded investment, are unjust and unreasonable. We further determine, under our prescriptive authority contained in Section 205 of the Communications Act, that ONA rates developed from technology mix and associated cost data which reflect a prospective view of the carrier's investment are, to the extent that rate levels are determined by these factors, just and reasonable.

42. We also conclude that a forward-looking technology mix may properly include analog investment whenever the carrier plans to use analog switches in the future. Five out of seven BOCs with analog switches in their technology mixes argue that it is appropriate to include these switches because they will continue to be in service in the future. In other words, these BOCs maintain that a prospective technology mix may reasonably include analog switches. The Commission finds these arguments to be persuasive. Our requirement to justify inclusion of analog switches should adequately protect against the manipulation of projections feared by Ad Hoc.

43. Ameritech and NYNEX did not base their BSE rates on a forward-looking technology mix, and therefore are hereby ordered to recalculate their BSE rates based on a forward-looking technology mix, i.e., on the basis of current and future switch purchasing decisions. In future ONA filings, BOCs must continue to use a prospective technology mix for the weighing of SCIS investment results, and to explain the basis for including any analog switching equipment in that mix.<sup>76</sup> Unlike the other methodological instructions directed to BOCs in this Order, which recognize that some circumstances may require different treatment, this determination constitutes a formal prescription under Section 205 of the Communications Act, 47 U.S.C. § 205.

## 2. Excessive Estimates for Direct Costs and Overhead Loadings

44. Typically, in the ratemaking process, rates are set to recover the sum of direct costs and overheads. Direct costs, which are predominantly capital costs and other plant specific costs, are closely linked to direct investment and are, therefore, usually calculated using direct investment as a starting point. Overheads, in turn, are usually calculated using direct costs as a base. In acknowledging this typical ratemaking process, the Part 69 ONA Order required carriers to provide ratios for each BSE for (1) direct cost to direct investment; and (2) price to direct cost.<sup>77</sup> In this section, we discuss carriers' estimates of direct costs and overheads.

45. Initial staff review of the tariff filings indicated that direct costs for BSEs were generally calculated from annual cost factors developed from internal company records. These cost factors were applied to the BSE-specific unit investment to calculate annual direct costs. Because most companies based their factors on internal records, the resulting factors could not be evaluated. As a result we cannot determine whether the direct costs are reasonable. Also, to the extent overhead loadings are usually based on direct costs, the reasonableness of the

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Opposition at 5-6, citing Part 69 ONA Order, 6 FCC Rcd at 4531, para. 38.

<sup>76</sup> NYNEX asserts that BOCs should be permitted flexibility to adjust technology mix assumptions to adapt to market conditions. NYNEX Direct Case, Appendix A at 5. However, since at any given time a BOC has only one technology mix reflecting its existing network, it would be unrealistic to permit a BOC to adjust switch mixes for a particular BSE or market.

<sup>77</sup> Part 69 ONA Order, 6 FCC Rcd 4524, 4531 at para. 44.

carrier's overheads is questionable.

46. With specific respect to overheads, the staff initially compared overhead ratios<sup>80</sup> among the carriers and identified BellSouth's and US West's overhead loadings factors as being significantly higher than other carriers'. Accordingly, in the ONA Designation Order, the Bureau directed BellSouth and US West to justify their loadings factors. BellSouth asserts that its overheads loading factor is based on the ratio of total local switching revenues to total local switching incremental costs. BellSouth explains that this loading factor is similar to the loading factor it uses for non-ONA new services. BellSouth insists that this is one of several possible reasonable overhead loading methodologies.<sup>81</sup> BellSouth states that the ONA investigation should focus on whether each carrier's pricing methodology is reasonable, rather than whether it differs from the methodology of other BOCs.<sup>82</sup> According to BellSouth, with the application of the local switching loadings factor, rates for the new services are established in the same relationship to their incremental costs as are existing local switching services priced with respect to their incremental costs.<sup>83</sup> The local switching revenues data for BellSouth are publicly available and can be verified.<sup>84</sup> However, the local switching incremental costs data are not publicly available. To develop its factor, BellSouth claims direct costs of approximately \$125 million without explanation. Absent a clear, verifiable explanation of the method, including an explanation of direct costs, the method cannot be deemed reasonable.

47. Similarly, US West believes its overhead loadings only appear excessive, because it uses overhead loading methodologies different from those of the other BOCs, but notes that its BSE rates are not excessive relative to those of the other BOCs.<sup>85</sup> US West asserts its overhead loading factor is the ratio between its local switching revenue requirement and its local switching direct costs.<sup>86</sup> However, while US West provides total local switching costs from its 1990 ARMIS Report 43-01, it fails to provide a clear, verifiable explanation for its direct costs.

48. MCI contends that these administrative overhead loadings are evidence that BOCs are permitted too much flexibility to manipulate their rates based on marketing rather than cost considerations. MCI asserts these manipulations permit BOCs to price non-competitive BSEs

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<sup>80</sup> Overhead ratios are the quotient of price divided by unit direct cost.

<sup>81</sup> BellSouth Direct Case at 33-34.

<sup>82</sup> As explained later in this section, while the initial designation of issues respecting overhead factors used by BellSouth and US West was based in part on their divergence from other carriers' factors, our determination that their factors are not justified on the present record relies on an independent, case-by-case review of their ratemaking methods, and the staff's development of a contingent, ARMIS-based reasonableness analysis as a benchmark for application when the carriers do not justify their methods.

<sup>83</sup> BellSouth Direct Case at 34.

<sup>84</sup> BellSouth claims it used 1990 recurring local switching basket revenues of approximately \$399 million which is not unreasonable since its 1991 TRP reflects local switching revenues of approximately \$400 million.

<sup>85</sup> US West Direct Case at 7-8.

<sup>86</sup> US West maintains that it developed its overhead loading factors on a Part 69 category basis from the 1990 ARMIS 43-01 Report. Specifically, US West divides its 1990 fully distributed cost (FDC) revenue requirement by the sum of the 1990 direct unit cost times 1990 demand for each rate element in that Part 69 category. *Id.* at 8-9 and Appendix D; US West Reply at 7-8. US West fails, however, to substantiate the method by which direct costs used to develop its overhead loading factors were calculated.

unreasonably high, and price BSEs that do not face competition unreasonably low.<sup>87</sup> MCI also maintains that the marginal investment study as described by BellSouth is flawed, because it fails to consider additional demand leading to premature switch exhaustion.<sup>88</sup> Metromedia believes that US West cannot justify an overhead loading factor greater than the overhead loading factors of other BOCs merely by stating it uses a different overhead loading methodology.<sup>89</sup> Ad Hoc asserts that it does not have sufficient information to determine whether these overhead loadings are excessive.<sup>90</sup> GSA maintains that, although the overhead loadings of BellSouth and US West appear excessive, the resulting rates do not appear excessive relative to other BOCs' rates, and therefore not unreasonable.<sup>91</sup>

49. While we authorized some carrier flexibility in methods used to determine both direct costs and overheads in the Part 69 ONA Order, we are concerned that some carriers have used cost allocation methods that have resulted in excessive direct costs and overheads, which in turn has led to excessive rates and contributed to dramatic rate variances between companies. On the present record, we have been unable to identify any reasonable explanation for direct costs claimed by a number of companies and for overhead loading factors selected by BellSouth and US West. The direct costs and overhead loadings claimed by these companies appear unreasonable and, absent further justification of their method, the companies specified in Attachment C must reduce their rates to reflect lower direct costs and overheads, as described below.

50. The absence of reasonable explanations by the carriers of their direct costs, and of BellSouth's and US West's overhead loadings, require that we conclude that the LEC ONA rates are not supported.<sup>92</sup> For example, the direct cost factors were based on "internal studies" that were never filed or reviewed at the Commission, and which are not currently available. We will therefore require carriers to refile their ONA rates, providing justification for their rates now in effect, or adjusting ONA rates to a level that can be justified. If the LECs fail again on refileing to provide adequate justification for their rates, we believe that the use of the ARMIS database to calculate an upper limit for both direct costs and overheads would be reasonable, using the ARMIS data the company itself provides to the Commission.<sup>93</sup> Therefore, upon refileing of ONA rates, we will evaluate any justifications the LECs offer in

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<sup>87</sup> MCI Opposition at 21-25.

<sup>88</sup> MCI Opposition at 6-8. As described in Section III.C.1., the carrier exercises its judgment when performing investment studies with respect to the probability that a switch will exhaust prematurely due to additional demand, and we have not constrained the carriers' flexibility in this respect.

<sup>89</sup> Metromedia Opposition at 8.

<sup>90</sup> Ad Hoc Opposition, Appendix I, at 10.

<sup>91</sup> GSA Opposition at 5-6.

<sup>92</sup> Our examination of rates included an analysis of the direct cases, as well as how the filed direct cost factors compared to recent cost data in the ARMIS database. We examined the relationships between (1) direct costs and direct investment (direct cost ratio) and (2) total cost and direct cost (overhead ratio). As specified in Attachment C, the ARMIS comparison revealed all BOCs other than New England exceeded ARMIS estimates of direct costs. Also, as specified in Attachment C, BellSouth and US West exceeded ARMIS estimates of overhead loadings. Thus, our review of existing data on file at the Commission did not provide any independent justification for the ONA rates as filed.

<sup>93</sup> The ARMIS data is a reasonable basis for alternative overhead calculations, and is the only verifiable alternative method available. Our use of ARMIS in the ONA context should not be construed as approving ARMIS as an ideal standard, or as applicable to all circumstances where overhead calculations are questioned, but its use appears reasonable in this instance.

support of direct cost ratios or overhead ratios.

### 3. Non-uniform Administrative Overhead Loadings

51. In the Part 69 ONA Order, we required each BOC to load overhead costs onto each of its BSE rates in a manner consistent with the overhead loading methodology used for its other BSEs, or to justify any inconsistencies.<sup>94</sup> The majority of BOCs claim any apparent nonuniformity in their overhead loading ratios is due to mathematical rounding.<sup>95</sup> Pacific Bell alleges that its overhead loading for the Network Reconfiguration BSE is different from the loadings for other BSEs because Network Reconfiguration is a special access service and the other BSEs are switched services.<sup>96</sup> MCI rejects Pacific's argument regarding special access, and asserts this is another example of improper manipulation of costs.<sup>97</sup> Ad Hoc asserts that it does not have sufficient information to determine whether the nonuniform overhead loadings are reasonable.<sup>98</sup> GSA asserts that the BOCs have given reasonable explanations for their nonuniform loadings.<sup>99</sup>

52. We conclude that the nonuniform loadings at issue here, whose nonuniformity is due solely to mathematical rounding, are reasonable. Since the BSE rates in these cases are fractions of a cent per unit, it is often very difficult for carriers to load overhead costs on BSEs at exactly the same rate for all. Similarly, as the overhead loadings for special access services have always been different from those for switched access services, we find that PacTel has in this instance adequately justified its nonuniform loading for Network Reconfiguration.<sup>100</sup>

### 4. Differences Between BSE Rates and Unit Costs

53. The Bureau's designation Order directed the BOCs to justify any differences between BSE rates and the total unit costs, including a reasonable rate of return, used to derive those BSEs. Some BOCs claim the differences between unit costs and rates for some BSEs are due to rounding.<sup>101</sup> Nevada Bell and Southwestern Bell maintain that they must set some BSE rates

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<sup>94</sup> Part 69 ONA Order, 6 FCC Rod at 4531, para. 44.

<sup>95</sup> Ameritech Direct Case at 7-8; BellSouth Direct Case at 37-39; Southwestern Bell Direct Case at 6-7; US West Direct Case at 10-11.

<sup>96</sup> Pacific Bell Direct Case at 7-8; PacTel Reply at 6-7.

<sup>97</sup> MCI Opposition at 25-26.

<sup>98</sup> Ad Hoc Opposition, Appendix I, at 10.

<sup>99</sup> GSA Opposition at 6.

<sup>100</sup> Southwestern Bell and BellSouth assert that, in the future, carriers should be free to use nonuniform overhead loadings when market conditions would make it advantageous to do so. Southwestern Bell Direct Case at 6-7; BellSouth Reply at 5, 7, 9-10, 17-18. Because no BOCs advocate specific nonuniform loadings in order to "adapt to market forces," we need not reach BellSouth's and Southwestern Bell's argument at this time.

<sup>101</sup> Bell Atlantic Direct Case at 7-8; BellSouth Direct Case at 39-40; NYNEX Direct Case, Appendix A at 7-8; Pacific Bell Direct Case at 8.

above unit costs to establish nonpremium rates for those BSEs.<sup>102</sup> For Multiline Hunt Group and Multiline Hunt Group - Uniform Call Distribution, Nevada Bell set its rates assuming that it would use other technologies in the future to provide those BSEs.<sup>103</sup> For Multiline Hunt Group - Preferred, Ameritech set the rate equal to a weighted average of other hunt group BSEs.<sup>104</sup> NYNEX set its interstate Three Way Calling BSE rate equal to its intrastate BSE rate to avoid "arbitrage" between jurisdictions.<sup>105</sup> NYNEX alleges that if interstate rates are reduced below intrastate rates, customers will choose the least costly alternative. This would result in an overall decrease in net revenue. NYNEX therefore asserts that the Part 69 ONA Reconsideration Order permits it to use the net revenue test to justify a rate otherwise unsupported by a cost showing.<sup>106</sup>

54. According to AT&T, the only discrepancies permitted by the Part 69 ONA Order are rates set using a risk premium, and AT&T maintains that NYNEX has not justified a risk premium.<sup>107</sup> MCI and AT&T believe that NYNEX's explanation regarding migration from intrastate to interstate BSEs to be insufficient to justify the interstate BSE rate and assert that the Bureau has rejected similar arguments in the past.<sup>108</sup> Metromedia asserts that Nevada Bell simply set its ANI rate as high as possible consistent with revenue neutrality for ONA services as a whole.<sup>109</sup> GSA asserts that the BOCs have given reasonable explanations for the differences between unit costs and rates; namely, differences due to rounding.<sup>110</sup>

55. We find the slight discrepancies between unit costs and rates that result from mathematical rounding do not make the rates unreasonable. For the same reason as was discussed in Section III.D.3. above, it is often very difficult for carriers to set BSE rates exactly equal to unit costs when BSE rates are fractions of a cent per unit. We also find that to set prices of similar Multiline Hunt Group BSEs equal, as Ameritech did, is reasonable. However, we reject NYNEX's "arbitrage" argument that it must set its interstate rate at the intrastate level. In the ONA Investigation Order, the Bureau noted that claims of potential tariff shopping had been considered in the Part 69 ONA Order, were the subject of a petition for partial

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<sup>102</sup> Nevada Bell Direct Case at 3-4; PacTel Reply at 7; Southwestern Bell Direct Case at 7-8. Nonpremium rates are rates for access services of lesser quality than was available to AT&T prior to divestiture of the Bell System. The Commission's Rules require BOCs to establish nonpremium local switching rates by multiplying premium rates by 0.45. See Section 69.113 of the Commission's Rules, 47 C.F.R. § 69.113.

<sup>103</sup> Id.

<sup>104</sup> Ameritech Direct Case at 9 and Att. 3. For Call Detail Reporting (CDR), Ameritech asserts the difference between direct costs and rates is necessary to recover the costs of mailing reports to customers, and to recover a portion of non-recurring costs. Ameritech claims CDR would be prohibitively expensive if the non-recurring costs were recovered exclusively through a non-recurring charge. Ameritech Direct Case at 8-9. For reasons discussed below, we find that Ameritech's CDR is a detariffed billing and collection service and order that it be detariffed. Therefore we do not need to reach the issue of whether Ameritech's tariff would be just and reasonable if CDR were a tariffed service.

<sup>105</sup> NYNEX Direct Case, Appendix A at 6-7; NYNEX Reply at 5-6.

<sup>106</sup> NYNEX Reply at 5-6.

<sup>107</sup> AT&T Opposition at 7. See also MCI Opposition at 27, citing Part 69 ONA Reconsideration Order, 7 FCC Rod at 5235.

<sup>108</sup> MCI Opposition at 27; AT&T Opposition at 8-9, citing ONA Investigation Order, 7 FCC Rod at 1522.

<sup>109</sup> Metromedia Opposition at 8-9.

<sup>110</sup> GSA Opposition at 6.

reconsideration, and so would not be considered in the context of this tariff proceeding.<sup>111</sup> NYNEX has provided no reason to reconsider this conclusion in this context. NYNEX's reliance on our discussion of the net revenue test in the ONA Reconsideration Order is misplaced. In that Order, we noted that a requirement of uniform loadings for new and existing services might lead to a reduced recovery of overhead costs, and so might discourage companies from offering new services.<sup>112</sup> This situation is distinguishable from the claims of jurisdictional arbitrage that NYNEX makes here. Accordingly, we direct NYNEX to establish interstate BSE rates equal to the total unit costs of providing those BSEs.

#### E. US West Unit Investment Studies

56. We now consider several unique issues raised by US West's reliance upon its own SCM software model, in conjunction with SCIS, to develop unit investment for BSEs. Of the 24 BSE rates in US West's filing, 15 were developed from the pre-1987 version of SCIS. The remaining nine BSE elements were developed from US West's SCM model.<sup>113</sup> As discussed below, we find that US West has failed to meet its burden of showing that its BSE rates are just and reasonable.

57. The Part 69 ONA Order requires that "the same methodology must be used for all BSEs unbundled from local switching."<sup>114</sup> The reasons for the requirement are fundamental. First, it is not reasonable to assume that multiple investment models, even if individually valid, would necessarily lead to a consistent allocation of costs for individual services. Our in camera review of the SCIS software reveals the complexity of these models, and the numerous assumptions made in their development. Thus, if a carrier used one method to develop the investments associated with a specific switch technology for half the BSEs provided by that switch, and a different method for the remaining BSEs, there is no reason to expect that the several investments developed under the two methods would sum to the total cost of the switch.<sup>115</sup> Second, a single methodology minimizes obscurity and complexity in a process that inherently resists simplification. If prices of unbundled BSEs are to stand in some reasonable relation to one another, the complex interactions within a single investment model, which have already occasioned substantial procedural burdens beyond the usual tariff review process, should not be multiplied by the challenge of using two such models to disaggregate the costs of a single switch technology.

58. These are general considerations that may not apply invariably to specific methods. Therefore, we need to determine whether using these two software models satisfies the

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<sup>111</sup> ONA Investigation Order, 7 FCC Rod at 1522, para. 73.

<sup>112</sup> ONA Reconsideration Order, 7 FCC Rod at 5236-37, paras. 8-11.

<sup>113</sup> US West did not offer any justification for its reliance upon these two models in the cost support initially filed with its ONA tariff. US West also did not submit the pre-1987 SCIS version it used to develop the majority of its BSE rates in January 1992, as was required by the SCIS In Camera Order. In April 1992, US West explained which software had been used to develop each of its 24 BSEs, and offered to submit the SCIS software it had used. Letter from A. Lim to J. Cimko, Chief, Tariff Division (April 16, 1992).

<sup>114</sup> Part 69 ONA Order, 6 FCC Rod at 4531.

<sup>115</sup> For the SCIS and SCM models, each model office is engineered according to the vendor's recommended engineering specifications. The total engineering costs are determined and compared to the model office data to validate the SCIS and SCM models. No comparable aggregate validation of a "half-and-half" model that uses SCIS to develop some BSE investments and SCM for others is possible.

requirement that BOCs develop all their BSE rates using a consistent methodology. As a threshold matter we note that US West has used an out-of-date SCIS model, incorporating comparably out-of-date vendor pricing data and operating software, for some of its investment studies. Its SCM model used for other BSE investment studies is similarly based on older vendor hardware and software.<sup>116</sup> US West has not sought to justify these practices as based on its continuing use of, e.g., older switch software in its operations. Indeed, a US West letter filed January 15, 1993, suggests some BSEs may become unavailable as the carrier increases its reliance in the future on digital switches. Absent a justification for these practices, we conclude that the US West rates are unlawful because they are based on outdated software and associated vendor data.<sup>117</sup> Therefore, US West has failed to meet its burden of proving that its rates, which are computed using these models, are reasonable.

59. We now examine the combined application of these two outdated software models. While we need not consider whether the combination of two such investment models invariably conflicts with the Part 69 ONA Order requirement that a consistent methodology be employed in cost-justifying BSEs, it is clear that SCIS and SCM are not sufficiently similar in structure and process to be considered a consistent methodology. This dissimilarity makes a quantitative comparison of the effects of these combined investment study processes with a single, consistent method extremely difficult. Nor is it possible to determine whether SCIS and SCM would produce the same set of outputs from a given set of inputs. These conclusions are endorsed by the independent auditor.<sup>118</sup> Thus, aside from its reliance on outdated software, US West has sought to combine in its ratemaking process two models that, considered together, cannot provide a consistent investment methodology for all unbundled BSEs. US West has not met the requirements of the Part 69 ONA Order in this respect and on this ground as well, its rates developed using this method have not been established as reasonable.

60. In addition to the significant difficulties posed by its use of two outdated investment models, the US West submission presents several other ratemaking deficiencies, which we have discussed more generally elsewhere in this Order. For example, US West provides no reasonable explanation for using only central offices in its central region to develop model offices for Make Busy Key and Message Delivery. Nor has US West shown that its central region is representative of its entire service territory.<sup>119</sup> Also, US West has used overstated overhead loadings, and should reduce those loadings to conform with loadings consistent with

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<sup>116</sup> Andersen Report, Appendix 18 at 5.

<sup>117</sup> See Section III.B.2. of this Order, supra.

<sup>118</sup> Supplemental Andersen Report, January 15, 1993, Section 4, at 5-6. Our in camera review, confirmed by the independent auditor's report, identifies numerous obstacles to using SCIS and SCM in an integrated manner to develop BSE investments. In a January 15, 1993, letter to the Common Carrier Bureau, Tariff Division, US West announced its intent to develop the BSE rates in its 1993 annual access filing using a later version of SCM (SCM II), and excluding any reliance on SCIS. While the letter characterizes SCM II as having no effect on unit investment studies, an attachment to the letter suggests that the contemplated unit investments for the 1993 annual access filing diverge dramatically from those contained in the direct case in this docket. As US West has indicated its intent to abandon efforts to use SCIS and SCM in tandem, we only note two of the problems: (i) the SCIS and SCM inputs are based on different assumptions, and the inputs for each model cannot be adapted for use in the other model without making further assumptions that will alter study results; and (ii) the SCM model is composed of two distinct software components, linked by external calculations, while SCIS is a self-contained model. In sum, the differences between the models are so significant that after consultation with the independent auditor, the Bureau determined that to attempt a rate sensitivity analysis including the US West rates would entail an effort disproportionate to any useful result.

<sup>119</sup> See Section III.B.1. of this Order, supra.

its ARMIS data.<sup>120</sup>

61. We therefore conclude that US West has failed to meet its burden of proving that its ONA rates filed November 1, 1991, are just and reasonable, because they are unsupported by a consistent unit investment methodology, which is an integral element of the cost support specified in the Part 69 ONA Order.

62. Given the substantial deficiencies in US West's rate development, we would normally prescribe replacement ONA rates rather than allow the unlawful rates to remain in effect on an interim basis. Several considerations, however, persuade us that this approach would not best serve the public interest in the present circumstances. First, and of primary importance, the initial demand for unbundled BSEs has been modest and because their rates were developed on a revenue neutral basis compared to feature group arrangements, few if any customers have been significantly burdened by these BSE rates. Because ONA is designed to be revenue neutral, excessive BSE rates are offset somewhat by lower BSA rates, although BSE rate adjustments may not be offset exactly by BSA rate adjustments given the uncertainties of ONA demand. In addition, under the terms of the Third Further Reconsideration of Part 69 ONA Order,<sup>121</sup> BOCs will be permitted to continue to offer feature group arrangements. So long as the feature groups will likely remain available as an option for US West's local switching customers,<sup>122</sup> there is little prospect that the US West subscribers most affected by unlawful BSE rates will be constrained to take service under those rates unless that alternative is preferable to the feature group configuration.<sup>123</sup> Moreover, given the deficiencies in the US West method and the corrective adjustments imposed on other carriers, we lack an adequate basis from which to prescribe replacement rates. The development of rates for individual BSE elements is a particularly complex undertaking when proprietary computer models must be utilized to perform investment studies, and in US West's case that process might well be further complicated if the operational and support difficulties encountered in reviewing the original SCM model persist in the replacement model.

63. These considerations, however, do not vitiate the requirement that US West promptly develop replacement ONA rates, based on a single investment study method and otherwise consistent with the methodological requirements of this Order. Implementing ONA on a basis consistent with our announced goals of enhancing competition and avoiding unreasonable pricing practices requires that US West expedite a curative tariff filing, failing which we will prescribe replacement rates.<sup>124</sup> US West should also submit as part of any replacement filing full documentation and software for the expanded SCM model, to facilitate initial in camera review by staff and any subsequent referral to an independent auditor.

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<sup>120</sup> See Section III.D.2. of this Order, supra.

<sup>121</sup> Amendments of Part 69 of the Commission's Rules Relating to the Creation of Access Charge Subelements for Open Network Architecture, 8 FCC Red 3114 (1993) (Third Further Reconsideration of Part 69 ONA Order).

<sup>122</sup> See US West Reply in Third Further Reconsideration, filed Oct. 18, 1991, at 3.

<sup>123</sup> To the extent that customers have paid US West's unlawful BSE rates and are constrained to continue doing so pending reformation of those rates, the Commission's formal complaint process provides recourse for parties seeking refunds.

<sup>124</sup> Should US West not file replacement rates within 60 days, or should those rates entail investigation, we will consider prescribing BSE rates based on an average of the other BOCs' revised rates, in the absence of any more rigorous basis for an alternative.



## IV. OTHER ISSUES

### A. Other Designated Issues

#### 1. Southwestern Bell Packet Switching BSE Rates

64. **Background.** The Bureau designated as an issue in this investigation "Are the rates for Southwestern Bell's packet switching BSEs excessive?" The Bureau specifically directed Southwestern Bell to provide the following information regarding its packet switching BSE rates:

(a) The classification and amounts of investment underlying each of the nine BSEs tariffed in Transmittal No. 2146, and the methods used to determine investment.

(b) Identification of and full documentation for all direct costs and overheads applied to the investment identified above, and a description of the ratemaking methods used, and if the ratemaking methodology differs from the method used for other Southwestern Bell switched access BSEs, an explanation of why a different method was used.

(c) For ONA elements priced substantially above cost, and allegedly priced to avoid arbitrage between the jurisdictions, an explanation of why it believes avoiding arbitrage justifies such pricing and of the basis for its expectation that significant arbitrage would result absent such pricing adjustments.

65. **Pleadings.** In response to (a), Southwestern Bell asserts that it charges nonrecurring rates for seven of the nine BSEs offered in Transmittal 2146, based on one time labor expenses. Southwestern Bell further asserts that only the Customer Alerting and Menu Server BSEs have recurring rates.<sup>125</sup> For (b), Southwestern Bell asserts that packet services are excluded from price cap regulation, and claims this justifies pricing these services on the basis of "competitive necessity." Thus, Southwestern Bell set rates for Customer Alerting and Menu Server based on its perception of the competitive market price.<sup>126</sup> Southwestern Bell responds to (c) only by stating that it has always maintained a parity between its intrastate and interstate packet switching rates in the past, and it should be allowed to continue to do so in the future.<sup>127</sup>

66. **Discussion.** In the Part 69 ONA Order, we required carriers who file BSE rates to provide cost support as is required by the Commission's price cap rules. Packet switching services are excluded from price cap regulation.<sup>128</sup> Thus, our price cap rules do not govern interstate packet switching service filings, and our packet switching cost support requirements do not change simply because these services are offered as BSEs. Therefore, Southwestern Bell is required to provide cost support for its packet switching BSE rates similar to the cost support required of other packet filings.

67. The Bureau designated these rates for investigation because Southwestern Bell did not

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<sup>125</sup> Southwestern Bell Direct Case at 9-10.

<sup>126</sup> *Id.* at 11-15.

<sup>127</sup> *Id.* at 15-16.

<sup>128</sup> LEC Price Cap Order, 5 FCC Rod at 6810, para. 195.